

B1
a!
cont

for a predetermined period, to an atmosphere consisting substantially of hydrogen under ordinary atmospheric pressure at ordinary temperature.

2. (Amended) The low attenuation optical fiber according to Claim 1, further comprising:

a dispersion slope (S) of no more than $0.15 \text{ ps/nm}^2/\text{km}$ over a wavelength band of 1530 to 1565 nm;

a polarization mode dispersion characteristic (PMD) of no more than $0.5 \text{ ps}/\sqrt{\text{km}}$; and,

a loss increase of no more than 40 dB/m at a wavelength of 1550 nm as coiled in a diameter of 20 mm.

3. (Amended) The low attenuation optical fiber according to Claim 1, further comprising:

an effective area (A_{eff}) of no more than $90 \text{ } \mu\text{m}^2$ at a wavelength of 1550 nm.

4. (Amended) The low attenuation optical fiber according to Claim 1, further comprising:

a dispersion slope of $0.04 \text{ ps/nm}^2/\text{km}$ to $0.08 \text{ ps/nm}^2/\text{km}$ over a wavelength band of 1530 to 1565 nm;

a dispersion of 6 ps/nm/km to 10 ps/nm/km in absolute value; and

an effective area of $40 \text{ } \mu\text{m}^2$ to $70 \text{ } \mu\text{m}^2$ at a wavelength of 1550 nm.

5. (Amended) The low attenuation optical fiber according to Claim 1, further comprising:

a1
cont

an effective area of no more than $90 \mu\text{m}^2$ at a wavelength of 1550 nm.

6. (Amended) The low attenuation optical fiber according to Claim 2, further comprising:

a dispersion slope of $0.04 \text{ ps/nm}^2/\text{km}$ to $0.08 \text{ ps/nm}^2/\text{km}$ over a wavelength band of 1530 to 1565 nm;

a dispersion of 6 ps/nm/km to 10 ps/nm/km in absolute value; and

an effective area of $40 \mu\text{m}^2$ to $70 \mu\text{m}^2$ at a wavelength of 1550 nm.

7. (Amended) A low attenuation optical fiber comprising:

a dispersion characteristic (D) of 2.0 to 14.0 ps/nm/km in absolute value over a wavelength band of 1530 to 1565 nm;

a transmission loss at a wavelength of 1520 nm which remains no more than 0.25 dB/km under standard atmospheric conditions; and

a transmission loss at a wavelength of 1550 nm which remains no more than 0.25 dB/km after being exposed, for a predetermined period, to an atmosphere consisting substantially of hydrogen under ordinary atmospheric pressure at ordinary temperature.

8. (Amended) The low attenuation optical fiber according to Claim 7, further comprising:

a dispersion slope (S) of no more than $0.15 \text{ ps/nm}^2/\text{km}$ over a wavelength band of 1530 to 1565 nm;

a polarization mode dispersion characteristic (PMD) of no more than $0.5 \text{ ps}/\sqrt{\text{km}}$; and,

a loss increase of no more than 40 dB/m at a wavelength of 1550 nm as coiled in a

diameter of 20 mm.

as
cont

9. (Amended) The low attenuation optical fiber according to Claim 7, further comprising:

an effective area (A_{eff}) of no more than $90 \mu\text{m}^2$ at a wavelength of 1550 nm.

10. (Amended) The low attenuation optical fiber according to Claim 7, further comprising:

a dispersion slope of $0.04 \text{ ps/nm}^2/\text{km}$ to $0.08 \text{ ps/nm}^2/\text{km}$ over a wavelength band of 1530 to 1565 nm;

a dispersion of 6 ps/nm/km to 10 ps/nm/km in absolute value; and

an effective area of $40 \mu\text{m}^2$ to $70 \mu\text{m}^2$ at a wavelength of 1550 nm.

11. (Amended) The low attenuation optical fiber according to Claim 8, further comprising:

an effective area of no more than $90 \mu\text{m}^2$ at a wavelength of 1550 nm.

12. (Amended) The low attenuation optical fiber according to Claim 8, further comprising:

a dispersion slope of $0.04 \text{ ps/nm}^2/\text{km}$ to $0.08 \text{ ps/nm}^2/\text{km}$ over a wavelength band of 1530 to 1565 nm;

a dispersion of 6 ps/nm/km to 10 ps/nm/km in absolute value; and

an effective area of $40 \mu\text{m}^2$ to $70 \mu\text{m}^2$ at a wavelength of 1550 nm.